

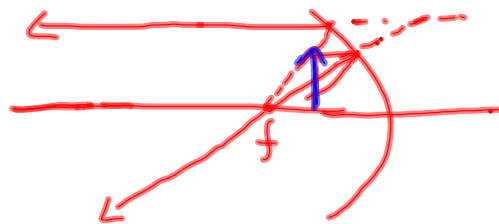
Mirror EQ

$$\frac{1}{d_o} + \frac{1}{d_i} = \frac{1}{f}$$

$$m = \frac{h_i}{h_o} = -\frac{d_i}{d_o}$$

3. $m = 3$

a) object



b) find focal length

$m = 3$ $d_o = 22 \text{ cm}$ $f = ?$

$$m = -\frac{d_i}{d_o} \quad 3 = -\frac{d_i}{22}$$

$$d_i = -66 \text{ cm}$$

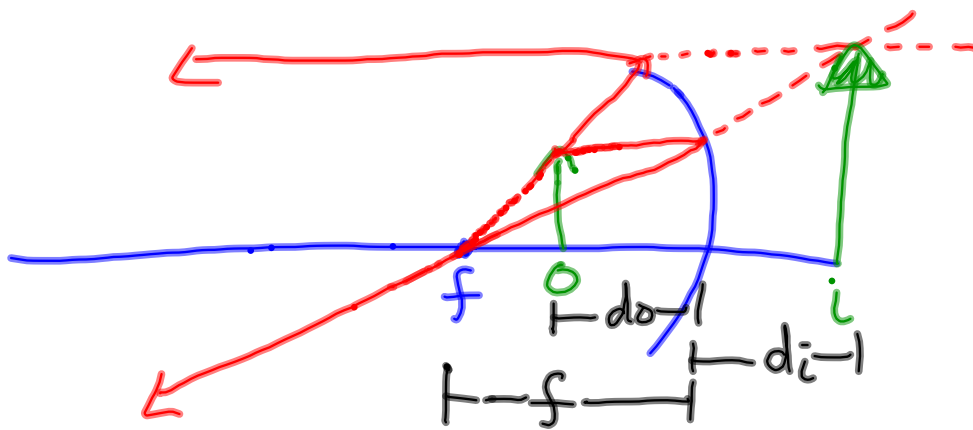
$$-\frac{1}{66} + \frac{1}{22} = \frac{1}{f}$$

$$\frac{-1}{66} + \frac{3}{66} = \frac{1}{f}$$

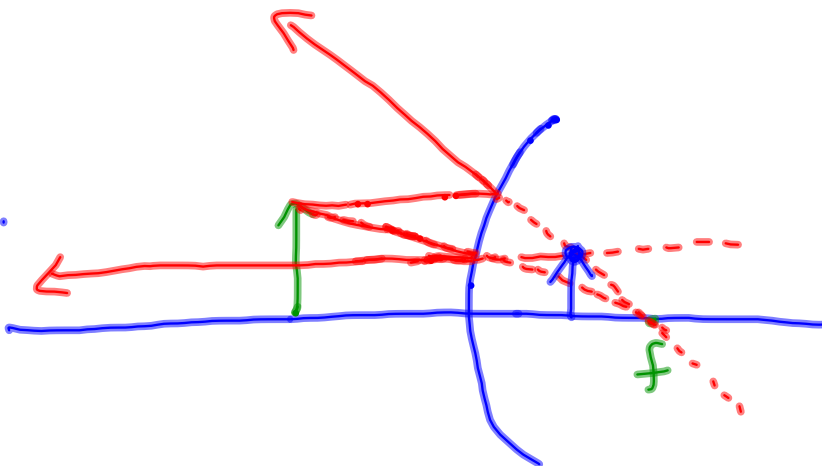
$$\frac{+2}{66} = \frac{1}{33}$$

$$f = 33 \text{ cm}$$

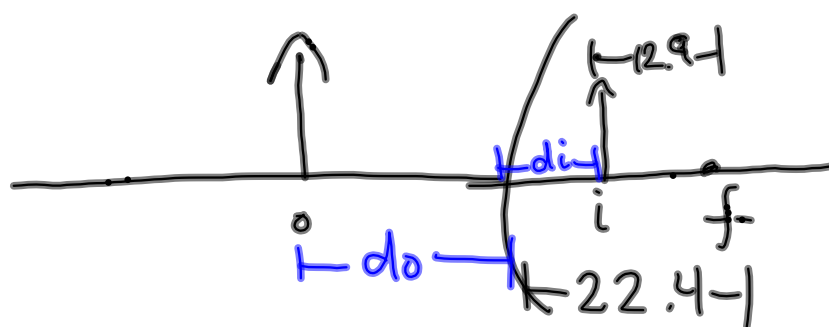
C2.



C3.



$$2. \quad f = -22.4 \text{ cm}$$



$$d_i = 22.4 - 29 \\ = 9.5$$